

March 15, 2017



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP15428
(SIXTH REVISION)

EXPIRATION DATE: 2021-02-28

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: National Aeronautics and Space Administration
(NASA)
Washington, DC
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of the Dragon space capsule containing non-DOT specification packages of hazardous materials. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
 - c. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 172.300 and 172.400 in that marking and labeling of the packagings contained within the capsule is not required, and Part 173 in that non-specification packagings are authorized as described herein.
5. BASIS: This special permit is based on the application of NASA dated February 1, 2017 submitted in accordance with § 107.109.

Tracking Number: 2017026996

March 15, 20176. HAZARDOUS MATERIALS (49 CFR 172.101):

a. The following hazardous materials are carried as cargo onboard the Dragon capsule:

Hazardous Materials Description¹			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Materials in Class 2	2.1, 2.2 and 2.3	Various	N/A
Materials in Class 3	3	Various	I, II and III
Materials in Class 4	4.1, 4.2 and 4.3	Various	I, II and III
Materials in Class 5	5.1 and 5.2	Various	I, II and III
Materials in Division 6.1	6.1	Various	I, II and III
Materials in Division 6.2	6.2	Various	N/A
Materials in Class 7	7	Various	N/A
Materials in Class 8	8	Various	I, II and III
Materials in Class 9	9	Various	II, III

¹ All hazardous materials carried as cargo onboard the Dragon space capsule must meet the safety requirements for transportation to/from the International Space Station per NASA safety processes documented in SSP 30599, Safety Review Process.

March 15, 2017

b. The following hazardous materials are part of the Dragon capsule:

Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Air bag inflators	9	UN3268	III
Cartridges, power device	1.3C	UN0275	II
Cartridges, power device	1.4C	UN0276	II
Cartridges, power device	1.4S	UN0323	II
Cutters, cable, explosive	1.4S	UN0070	II
Dinitrogen tetroxide	2.3	UN1067	N/A, Hazard Zone A
Helium, compressed	2.2	UN1046	N/A
Lithium batteries, contained in equipment	9	UN3091	II
Monomethylhydrazine	6.1	UN1244	I, Hazard Zone A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packaging are non-DOT specification packages and lithium batteries contained in equipment which are part of a Space Exploration Technologies Corporation "Dragon" space capsule assembly. Design of the Dragon space capsule and packagings for hazardous materials must be as described in the application on file with the Approvals and Permits Division (APD).

b. OPERATIONAL CONTROLS -

(1) Transportation is authorized for the return of the Dragon space capsule to a post-mission processing facility after splash down and recovery from the Pacific Ocean.

March 15, 2017

(2) The limitation in paragraph 7.b.1. does not apply when the space capsule contains only the residue of Dinitrogen tetroxide, 2.3, UN1067 in the amount of 0.01 lbs. and Monomethylhydrazine, 6.1, UN1244 in the amount of 0.01 lbs.

(3) Leak checks and safety checks must be performed on the pressure vessels prior to highway transport in accordance with the procedures described in the application for special permit.

(4) The Dragon space capsule assembly must be shipped secured in the transport fixture as described and in accordance with the procedures on file with the APD.

(5) Two qualified and trained drivers must transport the Dragon capsule. The transport vehicle must be attended at all times by a driver. Drivers must be trained in the dangers of the hazardous materials and measures to be taken in the event of an accident or emergency.

(6) The maximum quantity of hazardous materials transported as cargo on the Dragon space capsule must not exceed 500 pounds.

(7) All cargo meets NASA safety requirements for transportation to/from the International Space Station as per NASA safety processes documented in SSP 30599, Safety Review Process on file with the APD. Documentation must be provided to a representative of the DOT upon request.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

b. The space capsule transport fixture must be marked "DOT-SP 15428" on two opposite sides in letters at least 2 inches in height on the contrasting background. The

March 15, 2017

pressure vessels, corrosive liquid package and batteries contained within the capsule are not required to be marked or labeled.

c. An emergency response plan including contact information must be prepared for each specific route.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo vessel.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
 - o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term

March 15, 2017

"exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notices of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: TD